

CLAIMS

1. A bending apparatus for bending at least one glass sheet placed on a bending mold into a desired shape by heating in a furnace, which comprises a bending mold for placing at least one glass sheet thereon, a tunnel-like heating furnace through which the bending mold is conveyed, a first group of a plurality of heating elements fixed on an inner wall of the heating furnace, and a radiation-heating device having a second group of a plurality of heating elements placed separably from the inner wall surface of the heating furnace.

2. The bending apparatus for at least one glass sheet according to Claim 1, wherein the second group of heating elements radiation-heat locally at least one glass sheet at a predetermined position to provide a predetermined temperature distribution on the glass sheet.

Sub A' 3. The bending apparatus for at least one glass sheet according to Claim 1 or 2, wherein the second group of heating elements are suspended from a ceiling inner wall of the heating furnace at a position opposed to the upper surface of the glass sheet.

4. The bending apparatus for at least one glass sheet according to Claim 1, 2 or 3, wherein a distance between the second group of heating elements and the inner wall surface of the heating furnace is variable.

5. The bending apparatus for at least one glass sheet according to Claim 1, 2, 3 or 4, wherein each heating

element of the second group of heating elements has a heater wire and an equally heating plate provided at the heating face side of the heater wire.

6. A method of bending at least one glass sheet into a
5 desired shape, which comprises placing at least one glass sheet on a bending mold, introducing the glass sheet placed on the bending mold into a heating furnace having a tunnel-shaped inside, and heating the glass sheet by two types of heating means of a first group of a
10 plurality of heating elements fixed on an inner wall surface of the heating furnace and a second group of a plurality of heating elements placed separably from the inner wall surface of the heating furnace.

7. The method of bending at least one glass sheet
15 according to Claim 6, wherein the second group of heating elements radiation-heat locally at least one glass sheet to provide a predetermined temperature distribution on the glass sheet.

Sub A2
20 8. The method of bending at least one glass sheet according to Claim 6 or 7, wherein the second group of heating elements are suspended from a ceiling inner wall of the heating furnace and disposed at a position opposed to the upper surface of the glass sheet to provide a predetermined temperature distribution on the glass
25 sheet.

9. The method of bending at least one glass sheet according to Claim 6, 7 or 8, wherein a distance between

the second group of heating elements and the inner wall surface of the heating furnace is variable to provide a predetermined temperature distribution on the glass sheet.

- 5 10. The method of bending at least one glass sheet according to Claim 6, 7, 8 or 9, wherein the bending mold having the glass sheet placed thereon is intermittently conveyed so as to stop at each section in the heating furnace.

Added A3 →